

**IN THE CLAIMS:**

1. ~~Process~~ A process for producing a weld seam (1) in hardenable steel, comprising ~~at least the following steps:~~

a) positioning a laser beam (2) with respect to a weld line (3);  
b) heating subregions (4) of the steel by ~~means of~~ the laser beam (2) without secondary heating, with the laser beam (2) being guided along a welding track (5) which is longer than the weld line (3) wherein a relative movement of the laser beam with respect to the weld line at a feed rate is generated, the relative movement having a secondary movement superimposed on it; and

e) cooling the heated subregions (4) of the steel.

2.-14. (cancelled)